IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

In re the Application

Inventor	:	Jun-Seo Lee
Application No.	:	09/456,265
Filed	:	December 7, 1999
For	:	APPARATUS AND METHOD FOR RECORDING/ REPRODUCING VOICE MESSAGE IN EXCHANGE SYSTEM HAVING INTERNET GATEWAY

APPEAL BRIEF

On Appeal from Group Art Unit 2645

Date: 3/10/05

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Steve S. Cha, Reg. No. 44,069
(Name of Registered Representative)

(Signature and Date)

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I.   REAL PARTY IN INTEREST

The real party in interest is the assignee of the present application, Samsung

Electronics, Co., Ltd., and not the party named in the above caption.

II.   RELATED APPEALS AND INTERFERENCES

With regard to identifying by number and filing date all other appeals or

interferences known to Appellant which will directly effect or be directly affected by or

have a bearing on the Board's decision in this appeal, Appellant is not aware of any such

appeals or interferences.

III.   STATUS OF CLAIMS

Claims 1-30 have been presented for examination. All of these claims are

pending, stand finally rejected, and form the subject matter of the present appeal.

IV.   STATUS OF AMENDMENTS

The amendment after final rejection, filed in the Patent Office on November 5,

2004, was not entered. The amendment revises claim 15 by adding the inadvertently

omitted phrase "plurality of ports of said."

The last paragraph of the Advisory Action states that the amendment raises new

issues requiring a new search.

However, as stated in the first paragraph of the remarks in the amendment, the

inadvertently omitted phrase is <u>apparent from the language of claim 1, which stands</u>

<u>rejected on the same ground as claim 15. Moreover, it is unclear whether claim 15 makes</u>

sense without the omitted phrase. Finally, the phrase, whether included or omitted, has no direct bearing on what appears to be at issue in this appeal.

V.   SUMMARY OF THE INVENTION

An apparatus for recording/reproducing a voice message in response to an incoming call to an exchange system makes efficient use of memory in storing the voice messages (page 3, lines 12-14; page 14, line 19 – page 15, line 1). The apparatus includes at least one subscriber unit for entering the voice message (page 13, lines 5-7; page 13, line 17 – page 14, line 2). Also included in the apparatus is an internet gateway arranged within an exchange system for recording/reproducing the voice message (page 8, lines 14-16). The internet gateway features a digital-signal-processor (DSP) having a plurality of ports as data communicating paths (page 10, line 22 – page 11, line 4). The DSP includes: a) a digital signal processor having a buffer, b) a data compressor for compressing the voice message; and c) a data decompressor for decompressing the voice message stored in the buffer, and for outputting the voice message via one of the plurality of ports (page 11, lines 4-8, 16-22).

The internet gateway also has a call processor for establishing a call connection between the subscriber unit and the internet gateway in response to the incoming call and for outputting port information indicating an available port among the plurality of ports (page 10, lines 1-5).

A DSP manager, within the internet gateway and coupled to the call processor, activates the available port of said digital-signal-processor in response to the port information (page 10, lines 2-6)

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The internet gateway further includes a flash memory for storing the compressed voice message (page 10, lines 16-19).

A controlling circuit, in the internet gateway and coupled to the flash memory, controls the stored characteristics of the compressed voice message to be stored in the flash memory (page 11, lines 14-16, 19-21; page 14, line 17 – page 15, line 1). The controlling circuit also retrieves, in the buffer, the voice message stored in the flash memory, and does so in response to the incoming call from the telephone unit (page 10, lines 1-11; page 11, lines 13-14, 16-19). The retrieved voice message is decompressed and announced to the subscriber via an activated port of the DSP (page 10, lines 13-19). During the recording mode, an available port of the DSP is determined for receiving the message to be recorded (page 13, lines 9-15). The flash memory stores the data compressed by the data compressor in file units. The compressed data includes a plurality of messages that are merged and EOF (End of file) marked in the file unit, one by one, as shown in FIG. 5C (page 11, lines 13-16). The merging operation removes the trailing blank portion of the message (page 14, lines 19-21).

VI.   ISSUES

A.   Whether claims 1, 3-7, 9, 11-15, 17, 19-21, 23, 24 and 26-30 are invalidly rejected under 35 U.S.C. 102(e) as anticipated by U.S. Patent No. 5,946,386 to Rogers et al. ("Rogers").

B.   Whether claims 2, 10, 16, 22 and 25 are invalidly rejected under 35 U.S.C. 103(a) as obvious over Rogers in view of U.S. Patent No. 6,426,942 to Sienel et al. ("Sienel").

C.   Whether claims 8 and 18 are invalidly rejected under 35 U.S.C. 103(a) as unpatentable over Rogers.

VII.   GROUPING OF CLAIMS

Claims 1, 3-7, 9 and 11-14 stand or fall together. Claims 15 and 17 stand or fall together. Claims 19-21, 23, 24 and 26-30 stand or fall together. Claims 2 and 10 stand or fall together. Claims 16 and 22 stand or fall together. Claim 25 stands or falls alone. Claim 8 stands or falls alone. Claim 18 stands or falls alone.

VIII.   ARGUMENT

<u>ANTICIPATION REJECTION OF CLAIMS 1, 3-7, 9 and 11-14</u>

<u>First reason in traversal of the rejection</u>

As to claim 1, the applied reference, Rogers, fails to disclose or suggest "a <u>flash memory</u>," which claim 1 recites in step (iv). The final Office Action (hereinafter "Office Action") and Advisory Action consider the call management database 215 to feature the "flash memory" of claim 1. The Advisory Action suggests that the database 215 includes voice message storage and is therefore "functionally equivalent" to flash memory.

Rogers voice messages, however, are retrieved on a random access basis, because they are particular to the called number, and the number to be called at any given time is virtually unpredictable. Flash memory is not the memory of choice for random access. Accordingly, Rogers fails to mention, or even hint at, flash memory. In particular, Rogers fails to disclose or suggest, "a flash memory for storing said compressed voice messages" which feature explicitly appears in the present claim 1. For at least this

reason, Rogers fails to anticipate the present invention as recited in claim 1. Moreover,

since flash memory would not have been considered the memory of choice, flash memory

would not have been an obvious choice.

Second reason in traversal of the rejection

Claim 1 also recites, "a controlling circuit coupled to said flash memory for

controlling the stored characteristics of said compressed voice message to be stored in

said flash memory." Rogers fails to disclose or suggest this feature of claim 1.

The Advisory Action suggests that, since Rogers is able to distinguish different

kinds of messages, Rogers inherently teaches the above-quoted feature of our claim 1.

The Advisory Action further suggests that the "stored characteristics" of the present

claim 1 amount to merely the end-of-files (EOFs) separating our messages in flash

memory.

However, firstly Rogers makes no mention of EOFs, and fails to disclose EOFs at

least because EOFs are not the only device by which to separate entities stored in a

memory. For example, a header field may specify message length.

> "A claim is anticipated only if each and every element as set forth in the
> claim is found, either expressly or inherently described, in a single prior
> art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d
> 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) MPEP 2131.
>
> The fact that a certain result or characteristic may occur or be present in
> the prior art is not sufficient to establish the inherency of that result or
> characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957
> (Fed. Cir. 1993) (reversed rejection because inherency was based on what
> would result due to optimization of conditions, not what was necessarily
> present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ
> 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence
> 'must make clear that the missing descriptive matter is necessarily present
> in the thing described in the reference, and that it would be so recognized
> by persons of ordinary skill. Inherency, however, may not be established
> by probabilities or possibilities. The mere fact that a certain thing may

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result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) MPEP 2112.

Since EOFs <u>are not the only possible device</u>, it is unclear how Rogers can properly be considered to inherently disclose the EOFs.

Secondly, our "stored <u>characteristics</u>" include features that are emphasized in the merging process, and Rogers fails to disclose or suggest any merging. The merging, in the present invention, removes blanks at the end of a variable-length message before appending the EOF (specification, page 14, lines 19-21). Even though the message has already been compressed, these blanks may appear, for example, by virtue of transmitting the compressed message from the digital signal processor (DSP) to the flash memory. When the blanks are removed in merging, a distinguishing feature or quality of the message is its particular length. Thus, storage in flash memory in a manner that takes full advantage of the variable length (FIG. 5C, page 11, lines 14-16) of the compressed message controls the "<u>stored characteristics</u> of said compressed voice message to be stored in said flash memory." None of this structure, or any hint of such a structure, is found in Rogers.

In rejecting a dependent claim, claim 5, page 4 of the Office Action cites to "column 37" of Rogers as purported disclosure of merging, but the applicant is unable to find any such notion in the cited column. The Office and Advisory Actions incorrectly assume that structure that fairly can be regarded as meeting the language of claim 1 is somehow "inherent." Notwithstanding, <u>inherency</u>, as pertains to an anticipation rejection, requires that the feature be <u>the only possible implementation</u>, which is not the case here. In particular, neither the "flash memory" nor the "stored characteristics"

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constitute the only possible implementation. Accordingly, these features of the present claim 1 are not inherent, and the failure by Rogers to disclose these features renders the instant ground of rejection based on anticipation invalid.

Moreover, the applicant fails to see how this memory organization of the present invention would have been obvious. The applicant tolerates the random-access shortcomings of flash memory, because the series of messages to be delivered in response to a phone call is sequentially stored (see FIG. 5C). It is unclear to the applicant by what reasoning such sequential organization, and the use of flash memory to implement such organization, would have been obvious. Accordingly, it is unclear how it properly can be said that Rogers discloses, "a controlling circuit coupled to said flash memory for controlling the stored characteristics of said compressed voice message to be stored in said flash memory."

For at least this additional reason, Rogers fails to anticipate the present invention as recited in claim 1. Nor is it clear by what reasoning it would have been obvious to modify Rogers to embody "a controlling circuit coupled to said flash memory for controlling the stored characteristics of said compressed voice message to be stored in said flash memory" which quotation explicitly appears in the present claim 1.

For at least the foregoing reasons, Rogers fails to anticipate the present invention as recited in claim 1.

Since claim 9 likewise recites, ". . . a controlling circuit coupled to said flash memory for controlling the stored characteristics . . .," claim 9 is deemed to be patentable over Rogers for at least the same reasons set forth above with respect to claim 1.

ANTICIPATION REJECTION OF CLAIMS 15 AND 17

As mentioned above in section IV, "STATUS OF AMENDMENTS," an amendment after final adds an inadvertently omitted phrase to claim 15, but entry of the amendment has been denied without valid reason. Accordingly, claim 15 is reproduced below with the inadvertently omitted phrase italicized and placed within brackets.

Claim 15 is separately patentable from claims 1 and 9, because: a) since claim 15 recites a "flash memory" but not "stored characteristics," only the above-described "First reason in traversal of the rejection" of claims 1 and 9 applies to claim 15; and b) it is unclear whether the non-entry of the inadvertently omitted phrase renders claim 15 sufficiently clear under 35 U.S.C. 112.

> An apparatus for reproducing a voice message in response to an incoming call to an exchange system, said apparatus comprising:
> at least one subscriber unit; and
> an internet gateway arranged within an exchange system_for playing said voice message stored therein in response to said incoming call, said internet gateway comprising:
> (i) a flash memory for storing said voice message having at least one message;
> (ii) a digital-signal-processor having a plurality of ports, a buffer and a data decompressor for decompressing said voice message stored in said buffer, and for outputting said decompressed voice message via one of said plurality of port;
> (iii) a controlling circuit coupled to said flash memory for retrieving said voice message stored in said flash memory in said buffer and for storing said retrieved voice message in said buffer in response to said incoming call from said telephone unit;
> (iv) a call processor for establishing a call connection between said subscriber unit and said internet gateway in response to said incoming call from said telephone unit, for outputting port information indicating an available port among said [*plurality of ports of said*] digital-signal-processor, and for outputting said voice message responsive to said incoming call; and,
> (v) a DSP manager coupled to said call processor for activating said available port of said digital-signal-processor in response to said port information.

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ANTICIPATION REJECTION OF CLAIMS 19-21, 23, 24 and 26-30

Claims 19 and 23 are separately patentable from claims 1 and 9, because: a) since

claims 19 and 23 recite a "flash memory" but not "stored characteristics," only the above-

described "First reason in traversal of the rejection" of claims 1 and 9 applies to claim 15.

Claims 19 and 23 are separately patentable from claim 15, because any impact of

the inadvertent omission of the phrase from claim 15 does not affect claims 19 and 23.

OBVIOUSNESS REJECTION OF CLAIMS 2 AND 10

Claims 2 and 10 depend from base claims 1 and 9 respectively. The Sienel

reference cannot make up for the deficiencies in Rogers. Accordingly, claims 2 and 10

are deemed patentable over Rogers/Sienel at least due to their dependency from their

respective base claims.

OBVIOUSNESS REJECTION OF CLAIMS 16 AND 22

Claims 16 and 22 depend from base claim 15. The Sienel reference cannot make

up for the deficiencies in Rogers. Accordingly, claims 16 and 22 are deemed patentable

over Rogers/Sienel at least due to their dependency from base claim 15.

OBVIOUSNESS REJECTION OF CLAIM 25

Claim 25 depends from base claim 23. The Sienel reference cannot make up for

the deficiencies in Rogers. Accordingly, claim 25 is deemed patentable over

Rogers/Sienel at least due to its dependency from base claim 23.

OBVIOUSNESS REJECTION OF CLAIM 8

Claim 8 depends from base claim 1. As set forth above, claim 1 is not rendered

obvious by Rogers. Accordingly, claim 8 is deemed patentable over Rogers at least due

to its dependency from base claim 1.

OBVIOUSNESS REJECTION OF CLAIM 18

Claim 18 depends from base claim 15. As set forth above, claim 15 is not rendered obvious by Rogers. Accordingly, claim 18 is deemed patentable over Rogers at least due to its dependency from base claim 15.

REJECTION OF DEPENDENT CLAIMS

Each of the other rejected claims depends from a respective base claim that has been shown to be patentable over the applied reference(s), and is likewise patentable for at least the same reason(s) set forth above with regard to the respective base claim.

IX. CONCLUSION

In view of the above analysis, it is respectfully submitted that the referenced teachings, whether taken individually or in combination, fail to anticipate or render obvious the subject matter of any of the present claims. Therefore, reversal of all outstanding grounds of rejection is respectfully solicited.

Respectfully submitted,

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Date: ___3/10/05___   Attorney for Applicant

X.   APPENDIX: THE CLAIMS ON APPEAL

1.   An apparatus for recording/reproducing a voice message in response to an incoming call to an exchange system, said apparatus comprising:

at least one subscriber unit for entering said voice message; and

an internet gateway arranged within an exchange system for recording/reproducing said voice message, said internet gateway comprising:

(i) a digital-signal-processor (DSP) having a plurality of ports as data communicating paths, said digital signal processor having buffer, a data compressor for compressing said voice message, and a data decompressor for decompressing said voice message stored in said buffer, and for outputting said voice message via one of said plurality of port;

(ii) a call processor for establishing a call connection between said subscriber unit and said internet gateway in response to said incoming call and for outputting port information indicating an available port among said plurality of ports;

(iii) a DSP manager coupled to said call processor for activating said available port of said digital-signal-processor in response to said port information;

(iv) a flash memory for storing said compressed voice message; and,

(v) a controlling circuit coupled to said flash memory for controlling the stored characteristics of said compressed voice message to be stored in said flash memory and for retrieving said voice message stored in said flash memory in said buffer in response to said incoming call from said telephone unit;

2.   The apparatus as set forth in claim 1, wherein said data compressor and said data decompressor, respectively, compresses and decompresses said voice message according to one of the algorithms set forth in G.723.1 and G.729.

3.   The apparatus as set forth in claim 1, wherein said voice message corresponds to a plurality of voice messages.

4.   The apparatus as set forth in claim 3, wherein said controlling circuit stores said compressed voice message, one by one, in a file in said flash memory in response to a request signal from said subscriber unit for terminating the recording of said voice message.

5.   The apparatus as set forth in claim 4, wherein said controlling circuit merges said compressed voice message stored in said flash memory.

6.   The apparatus as set forth in claim 5, wherein said controlling circuit marks each said compressed voice message stored in said flash memory to indicate the end of said file.

7.   The apparatus as set forth in claim 1, wherein said controlling circuit periodically controls the movement of said voice message from said flash memory to said buffer in response to said incoming call.

8.   The apparatus as set forth in claim 7, wherein said controlling circuit retrieves said voice message from said flash buffer at every 30 milliseconds.

9.   An apparatus for recording a voice message to be announced in response to an incoming call to an exchange system, said apparatus comprising:

at least one subscriber unit for entering said voice message; and

an internet gateway arranged within an exchange system for recording said voice message, said internet gateway comprising:

(i) a digital-signal-processor (DSP) having a plurality of ports as data communicating paths, said digital signal processor having a data compressor for compressing said voice message;

(ii) a call processor for establishing a call connection between said subscriber unit and said internet gateway in response to said incoming call and for outputting port information indicating an available port among said plurality of ports;

(iii) a DSP manager coupled to said call processor for activating said available port of said digital-signal-processor in response to said port information;

(iv) a flash memory for storing said compressed voice message; and,

(v) a controlling circuit coupled to said flash memory for controlling the stored characteristics of said compressed voice message to be stored in said flash memory.

10.   The apparatus as set forth in claim 9, wherein said data compressor compresses said voice message according to one of the algorithms set forth in G.723.1 and G.729.

11.   The apparatus as set forth in claim 9, wherein said voice message corresponds to a plurality of voice messages.

12.   The apparatus as set forth in claim 11, wherein said controlling circuit stores said compressed voice message, one by one, in a file in said flash memory in response to a request signal from said subscriber unit for terminating the recording of said voice message.

13.   The apparatus as set forth in claim 12, wherein said controlling circuit merges said compressed voice message stored in said flash memory.

14. The apparatus as set forth in claim 13, wherein said controlling circuit marks each said compressed voice message stored in said flash memory to indicate the end of said file.

15. An apparatus for reproducing a voice message in response to an incoming call to an exchange system, said apparatus comprising:

at least one subscriber unit; and

an internet gateway arranged within an exchange system for playing said voice message stored therein in response to said incoming call, said internet gateway comprising:

(i) a flash memory for storing said voice message having at least one message;

(ii) a digital-signal-processor having a plurality of ports, a buffer and a data decompressor for decompressing said voice message stored in said buffer, and for outputting said decompressed voice message via one of said plurality of port;

(iii) a controlling circuit coupled to said flash memory for retrieving said voice message stored in said flash memory in said buffer and for storing said retrieved voice message in said buffer in response to said incoming call from said telephone unit;

(iv) a call processor for establishing a call connection between said subscriber unit and said internet gateway in response to said incoming call from

said telephone unit, for outputting port information indicating an available port among said digital-signal-processor, and for outputting said voice message responsive to said incoming call; and,

(v) a DSP manager coupled to said call processor for activating said available port of said digital-signal-processor in response to said port information.

16.   The apparatus as set forth in claim 15, wherein said data decompressor decompresses said voice message according to one of algorithms set forth in G.723.1 and G.729.

17.   The apparatus as set forth in claim 16, wherein said controlling circuit periodically controls the movement of said voice message from said flash memory to said buffer in response to said incoming call.

18.   The apparatus as set forth in claim 17, wherein said controlling circuit retrieves said voice message from said flash buffer at every 30 milliseconds.

19.   A method for recording a voice message in response to an incoming call in an exchange system having an internet gateway arranged within an exchange system that includes a DSP with a data compressor for compressing said voice

message and for supporting a plurality of ports as data transmitting/receiving paths,

and that further includes a flash memory for storing said compressed voice

message, said method comprising the steps of:

establishing, upon a request for recording said voice message from a

subscriber unit, a call connection between said subscriber unit and said internet

gateway;

determining an available port of said DSP;

receiving said voice message from said subscriber unit via said

available port and compressing said received voice message by said data

compressor; and,

storing said compressed voice message in a file in said flash

memory.

20.   The method as set forth in claim 19, wherein said voice message

corresponds to a plurality of voice messages.

21.   The method as set forth in claim 20, further comprising the step of

merging said each voice message and marking each said voice message with end-

of-marking to be stored in said flash memory.

22.   The method as set forth in claim 19, wherein the data compressor compresses said voice message received from said available port according to one of the algorithms set forth in G.723.1 and G.729.

23.   A method of reproducing a voice message from an exchange system having an internet gateway arranged within an exchange system, which includes a flash memory for storing compressed said voice message, and a DSP having a buffer and a data decompressor for decompressing said voice message, for supporting a plurality of ports as data transmitting/receiving paths, said method comprising the steps of:

establishing, upon a request for reproducing said voice message from said internet gateway, a call connection between a subscriber and said internet gateway;

determining an available port of said DSP and corresponding voice message stored in said flash memory responsive to said incoming call;

activating said available port of said DSP;

retrieving said voice message responsive to said determined voice message stored in said flash memory to said buffer of said DSP;

reading said retrieved voice message in said buffer and decompressing said read voice message by said data decompressor; and,

announcing said decompressed voice message to said subscriber via said activated port of said DSP.

24. The method as set forth in claim 23, wherein said voice message stored in said buffer is performed at a predetermined time interval.

25. The method as set forth in claim 23, wherein said data decompressor decompresses said voice message retrieved from said buffer according to one of the algorithms set forth in G.723.1 and G.729.

26. The apparatus according to claim 1, wherein the exchange system comprises a private automatic branch exchange (PABX) without requiring a separate voice mail system (VMS) to be in communication with said PABX.

27. The apparatus according to claim 9, wherein the exchange system comprises a private automatic branch exchange (PABX) without requiring a separate voice mail system (VMS) to be in communication with said PABX.

28. The apparatus according to claim 15, wherein the exchange system comprises a private automatic branch exchange (PABX) without requiring a separate voice mail system (VMS) to be in communication with said PABX.

29. The method according to claim 19, wherein the exchange system comprises a private automatic branch exchange (PABX) without requiring a

separate voice mail system (VMS) to be in communication with said PABX, and wherein the receiving and storing of said voice message occurs within the Internet Gateway of the branch exchange.

30. The method according to claim 23, wherein the exchange system comprises a private automatic branch exchange (PABX) without requiring a separate voice mail system (VMS) to be in communication with said PABX, and wherein the retrieving, reading, decompressing and announcing of said voice message occurs within the Internet Gateway of the branch exchange.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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SERIAL NO.   :   09/456,265   EXAMINER   : Olisa Anwah

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FOR   :   APPARATUS AND METHOD FOR RECORDING/REPRODUCING
                  VOICE MESSAGE IN EXCHANGE SYSTEM HAVING INTERNET
                  GATEWAY

APPEAL BRIEF TRANSMITTAL LETTER

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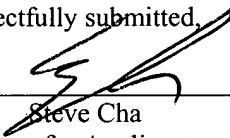Commissioner for Patents
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Dear Sir:

Appellants respectfully submit three copies of a Brief For Appellants that includes an

Appendix with the pending claims. The Appeal Brief is now due on March 11, 2005.

Appellants enclose a check in the amount of $500.00 covering the requisite Government Fee.

Should the Examiner deem that there are any issues which may be best resolved by telephone

communication, kindly telephone Applicants undersigned representative at the number listed below.

Respectfully submitted,

By: Steve Cha
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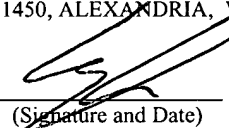

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